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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/379, 646 08/23/99 LILENFELD

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EXAMINER	
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TM02/1010

DAVID M LILENFELD  
APT 4206  
2158 CUMBERLAND PARKWAY  
ATLANTA GA 30339

NGUYEN, T	ART UNIT	PAPER NUMBER
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2673

*5***DATE MAILED:**

10/10/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/379,646	LILENFELD, DAVID M.
Examiner	Art Unit	
Jimmy H. Nguyen	2673	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 10 August 2001.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 12-19 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 12-19 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____	6) <input type="checkbox"/> Other: _____

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 16 is objected to because of the following informalities: line 1, "4" should be changed to --15-- since claim 4 was cancelled and claim 15 is the only claim reciting a number of keys. Appropriate correction is required.

### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the claimed features, "a peripheral surface extending between and joining the palm surface and the base", "the distal end of the body" and "electrical circuit" recited in claim 12, "a scroll wheel" recited in claim 16, "a transparent shade for transmitting radio frequency energy" recited in claim 18, and "a transparent shade for transmitting infrared energy" recited in claim 19, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
4. Claims 12-19 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

As per claims above, the application does not disclose the claimed limitations recited in independent claim 12, as follows:

- a. the claimed limitation, "a peripheral surface extending between and joining the palm surface and the base", i.e., what reference number in the drawing corresponds to the claimed peripheral surface and where in the specification discloses the claimed peripheral surface.
- b. the claimed limitation, "an edge located where the palm surface meets the peripheral surface", i.e., what reference number in the drawing corresponds to the claimed edge and where in the specification discloses the claimed edge.
- c. the claimed limitation, "the ball being positioned along the edge at the distal end of the body", i.e., what reference number in the drawing corresponds to the claimed distal end of the body and where in the specification discloses the claimed distal end of the body. Further, the specification only discloses that the ball 16 is slightly exposed on the left side of the body 11, page 13, lines 1-2.
- d. the claimed limitation, "at least one key mounted at the distal end of the body, the key having a fingertip portion that defines part of the peripheral surface", i.e., where in the specification discloses this claimed limitation.

Therefore, these claims are rejected for the reason as set forth above.

*Claim Rejections - 35 USC § 102*

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

Art Unit: 2673

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 12 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Bidiville et al. (USPN: 5,578,817).

As per claim above, the claimed invention reads on Bidiville et al. follows: Bidiville et al. discloses the same device as claimed noting figure 20A which shows a body including an elevated upper housing (2005) as the claimed convex palm surface; a lower housing (2010) as the claimed substantially planar base; a surface, as the claimed peripheral surface, extending between and joining the elevated upper housing (2005) and the lower housing (2010); an edge as claimed; a roller ball (710) being positioned along the edge at the distal end of the body and rested by the thumb (col. 25, lines 5-11), as the claimed roller ball; three buttons (2020A, 2020B and 2020C) at the distal end of the body, as the claimed keys; an electronic circuit (a printed circuit board 2051) as the claimed electrical circuit; and a communicator (a line interface 560, see fig. 5A and col. 12, lines 10-13; or a standard serial communications such as RS 232, col. 5, lines 41-51). The elements in the claim are read in the reference.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bidiville et al.

As per claims above, as noting figure 20A, such an arrangement permits the thumb to rest naturally over the ball, while also permitting the index, center and ring fingers to rest over the buttons. Furthermore, one skilled in the art would obviously recognize that such an arrangement obviously permits the thumb to rest naturally over the ball, while also permitting the index and center fingers to rest over two buttons and the ulnar fingers to wrap around the side of the body opposite the ball, as claimed. Therefore, these claims are rejected for the reason as set forth above.

9. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bidiville et al. in view of Adams et al. (USPN: 6,031,518).

In regard to claim 16 as applied to claim 15 above, Bidiville et al. discloses the claimed device except for the scroll wheel.

However, Adams et al. teaches a related ergonomic device (fig. 1) comprising a scroll wheel (34) for scrolling the windows on the computer screen up and down as known by one skilled in the art (col. 1, lines 39-47). Furthermore, a scroll wheel disposed between the enter key and the drag key, for permitting the up and down scrolling of windows is well-known to one skilled in the art (see specification of the pending application, page 17, lines 21-22).

It would have been within the level skill in the art to substitute the middle key of Bidiville et al. for the scroll wheel of Adams et al. because this would allow a user easily to scroll the windows on the computer screen up and down, as known by one skilled in the art. This claim is therefore rejected for the reason as set forth above.

10. Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bidiville et al. in view of Harding et al. (USPN: 6,184,869).

In regard to claims 17-19 as applied to claim 12 above, as described above, Bidiville et al. teaches a communicator a line interface (560) (see fig. 5A and col. 12, lines 10-13), or a standard serial communications such as RS 232 (col. 5, lines 41-51). However, one skilled in the art would recognize that RS 232 standard serial communications including a cable is well-known to one skilled in the art.

However, Harding et al. discloses a related cursor control device (10) (see fig. 1) comprising a communicator which may be one of electrical cable (20) (fig. 1), or radio frequency transmission or infrared transmission (col. 5, lines 7-11).

It would have been obvious to one skilled in the art to provide an electrical cable or radio frequency transmission or infrared transmission of Harding et al. in the device of Bidiville et al. so as to allow the data transmitted from the input device to the computer as taught by Harding et al. (col. 5, lines 7-11).

Therefore, it would have been obvious to combine Harding et al. with Bidiville et al. to obtain the invention as specified in claims above.

11. Claims 12-15 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koh et al. (USPN: 5,122,654) in view of Harding et al..

As per claims 12-15 and 17, Koh et al. discloses the same device as claimed noting figure 1 which shows a body including an elevated portion (70) as the claimed convex palm surface (col. 3, lines 19-35); a lower housing (30) as the claimed substantially planar base; a surface, as the claimed peripheral surface, extending between and joining the elevated portion (70) and the lower housing (30) (see fig. 1); an edge as claimed (see fig. 1); three buttons (50a, 50b, 50c) at the distal end of the body, as the claimed keys; an electronic circuit as the claimed electrical

circuit (see fig. 5); a cord and a connector (60) as the claimed communicator (col. 2, lines 65-68); and a ball (40) displaced substantially to the left of the lateral midpoint of the trackball (col. 3, lines 3-5). Koh et al. further teaches that such arrangement permits the thumb to rest naturally over the ball, while also permitting the index, center and ring fingers to rest over the buttons (fig. 1, col. 3, lines 11-15). Furthermore, one skilled in the art would recognize that such arrangement obviously permits the thumb to rest naturally over the ball, while also permitting the index and center fingers to rest over two buttons and the ulnar fingers to wrap around the side of the body opposite the ball, as claimed. Accordingly, Koh discloses the claimed device except for the roller ball being positioned along the edge at the distal end of the body.

However, Harding et al. discloses a related cursor control device (10) including a roller ball (50/116) being positioned along the edge at the distal end of the body, as claimed (see figs. 2 and 6).

Furthermore, it would have been an obvious matter of design choice to relocate the ball of Koh et al., since a such modification would have involved a mere change in the location of a component. A change in location is generally recognized as being within the level of ordinary skill in the art In re Japikse, 86 USPQ 70 (CCPA 1950) and as being taught by Harding et al., since the operation of the device would not thereby be modified.

Therefore, these claims above are rejected for the reason as set forth above.

In regard to claims 18 and 19 as applied to claim 12 above, Harding et al. further teaches the cursor control device comprising a communicator which may be one of electrical cable (20) (fig. 1), or radio frequency transmission or infrared transmission (col. 5, lines 7-11).

Accordingly, Koh in view of Harding et al. discloses the claimed device, and these claims are therefore rejected for the reason as set forth above.

12. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koh et al. in view of Harding et al. and further in view of Adams et al..

In regard to claim 16 as applied to claim 15 above, Koh et al. in view of Harding et al. discloses the claimed device except for the scroll wheel.

However, Adams et al. teaches a related ergonomic device (fig. 1) comprising a scroll wheel (34) for scrolling the windows on the computer screen up and down as known by one skilled in the art (col. 1, lines 39-47). Furthermore, a scroll wheel disposed between the enter key and the drag key, for permitting the up and down scrolling of windows is well-known to one skilled in the art (see specification of the pending application, page 17, lines 21-22).

It would have been within the level skill in the art to substitute the middle key of Koh et al. for the scroll wheel of Adams et al. because this would allow a user easily to scroll the windows on the computer screen up and down, as known by one skilled in the art. This claim is therefore rejected for the reason as set forth above.

#### *Response to Arguments*

13. Applicant's arguments with respect to new claims have been considered but are moot in view of the new ground(s) of rejection. Please see the rejection above.

14. In response to applicants' argument filed "the element "a convex palm surface configured to fit the palm of a hand that grips the device" ... is not disclosed in Koh et al.", page 7, lines 11-13, Examiner asserts that Koh obviously teaches that claimed feature as noting in col. 3, lines 20-22, please see the rejection above.

15. In response to applicants' argument filed "Applicant also maintains that ... a substantially planar base positioned opposite the palm surface" is not suggested in Peric et al. (5,956,018)", page 7, lines 13-15, it is noted to applicant that such claimed feature is disclosed by Koh et al. and Bidiville et al. as described in the rejection above.

16. In response to applicants' argument filed "Furthermore, ... a roller ball rotately mounted in the body, the ball being positioned along the edge at the distal end of the body" is not taught in Koh et al. ... 518)", page 7, lines 16-18, Examiner asserts that Koh obviously teaches that claimed feature, please see the rejection above.

17. In response to applicants' argument filed "Finally, Applicant ... at least one key mounted at the distal end of the body" is not disclosed in Adams et al. (6,031,518), page 7, lines 18-21, it is noted to applicant that such claimed feature is disclosed by Koh et al. and Bidiville et al. as described in the rejection above, and the presence of Adams in the rejection above is a teaching of using a scroll wheel in the device.

### *Conclusion*

18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy H. Nguyen whose telephone number is (703) 306-5422. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached at (703) 305-4938.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

**(703) 872-9314 (for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

JHN  
October 4, 2001

  
BIPIN SHALWALA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600